

Remarks/Arguments

Amendments to the Specifications.

Applicant has amended the specification to vary the scope included in the original specification. Original Claim 6 recites the linking members as lattice bars. Applicant has added this description to paragraph [0017]. Therefore, no new matter has been added.

Objections to the Specification Under 37 CFR 1.75(d)(1)

The Examiner objected to the specification under 37 CFR 1.75(d)(1) for failing to provide antecedent basis for Claim 26. Applicant has amended Claim 26 so that Claim 26 now recites the propeller arranged to operate as a fan rather than being connected to a fan. That is, Applicant has removed the element of a fan separate from the propeller. This amendment is fully supported by original paragraph [0039]:

[0039] The present invention can be applied to a number of propeller or blade applications. For example, the present invention can be used in applications providing propulsion for transportation units including, but not limited to, aircraft, waterborne vessels, and submersible vessels. *In addition, the present invention can be used in rotational fans or blowers* (emphasis added).

In general, the same structure can form a fan or a propeller depending on the frame of reference. Both a fan and a propeller accelerate fluid. However, a fan is fixed in place and moves the fluid with respect to the fixed position of the fan. A propeller is fixed to an object that moves through the fluid as a result of accelerating the fluid. For example, a ship hard aground or aircraft securely grounded can only use its propeller as a fan and a fan mounted on a rolling or floating base becomes a propeller.

Applicant respectfully submits that the specification is in compliance with 37 CFR 1.75(d)(1). Applicant requests that the objection be removed.

Objections to the Drawings Under 37 CFR 1.83(a)

The Drawings were objected to under 37 CFR 1.83(a) for failing to show every feature of the invention specified in the claims. As noted *supra*, Applicant has amended Claim 26 to comply with the original specification. Paragraph [0039] states that the present invention can be used as a fan. Applicant respectfully submits that there is no need to modify the drawings to show the present invention functioning as a fan and that the drawings are in compliance with 37 CFR 1.83(a). Applicant requests that the objection be removed.

The Rejection of Claim 26 Under 35 U.S.C. §112

The Examiner rejected Claim 26 under 35 U.S.C. §112 first paragraph as failing to comply with the enablement requirement.

Applicant has amended Claim 26 as noted *supra*. Claim 26 is now fully supported by original paragraph [0039] of the specifications. Applicant respectfully submits that amended Claim 26 overcomes the rejection under 35 U.S.C. §112, and reconsideration is requested.

The Rejection of Claims 1, 2, 25, and 27-30 Under 35 U.S.C. §102

The Examiner rejected Claims 1, 2, 25, and 27-30, under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 2,996,121 (Stub). Applicant respectfully traverses the rejection.

Anticipation requires that all of the elements of the claim be taught within the four corners of a single reference.

Stub does not teach connected, pivoting members.

Stub does not teach the amended Claim 1 element of: “a blade assembly having a plurality of linking members operatively connected to one another, *where at least two of said linking members are pivotally connected one to the other* (emphasis added).” The Examiner has cited elements 19 and 44 as corresponding to the linking members recited in Claim 1. Stub describes 19 as a means to take in and play out the flexible spar means (col. 2, lines 43,44) and 44 as rib stops on spars 16 (col. 3, lines 57-60). Applicant submits that 19 and 44 do not describe or suggest linking members as recited in Claim 1. Stub teaches nesting ribs 14

retractable into each extension 12. The ribs slide along spars 16. Means 15 spans between the ribs (col. 2, lines 37-40; and Figs. 1-3). Further, Stub teaches that means 15 spans between the ribs and is “rib-enclosing” sheathing 39 with accordion folds 40. (col. 3, lines 26-31).

Assuming *arguendo* that Stub is applicable to the present invention, it appears that ribs 14 would most nearly form some type of blade assembly and therefore most nearly correspond to the linking members recited in Claim 1. However, no two ribs are connected one to the other as is recited in Claim 1. Instead, Stub clearly teaches that the ribs are connected to a spar, not each other. Further, since no two ribs are connected one to the other, no two ribs can be pivotally connected one to the other as recited in Claim 1. Instead Stub teaches that the ribs move along the spars, maintaining a non-connected, parallel configuration. Thus, Stub does not teach the Claim 1 limitation of: “a blade assembly having a plurality of linking members operatively connected to one another, where at least two of said linking members are pivotally connected one to the other.”

Stub does not teach all the elements of Claim 1. Therefore, Claim 1 is novel with respect to Claim 1. Claims 2 and 25, dependent from Claim 1, enjoy the same distinction from the cited prior art.

The Examiner has stated that the method steps in Claim 27 are inherent in the method of operating the apparatus of Claim 1. Therefore, Claim 27 also is novel with respect to the cited prior art. Claims 28-30, dependent from Claim 27, enjoy the same distinction from the cited prior art.

Applicant requests that the rejection be removed.

The Rejection of Claims 1, 23, and 27 Under 35 U.S.C. §102

The Examiner rejected Claims 1, 23, and 27 under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 2,885,012 (Heintzelman). Applicant respectfully traverses the rejection.

Heintzelman does not teach a separate blade surface engaging a blade assembly.

Claim 1 recites: “a blade assembly having a plurality of linking members operatively connected to one another ... and, a blade surface engaged with said blade assembly, covering at

least a portion of said blade assembly, and operatively arranged to change shape when said linking members are moved with respect to one another.” Claim 1 recites a blade surface separate from said blade assembly and engaged to the assembly. Assuming *arguendo* that blades 20 of Heintzelman form a blade assembly, it is clear that 26, 28, and 44 are not separate from blades 20 and therefore cannot engage blades 20. Heintzelman teaches that reference 20 refers to a pair of blades 20 located on either side of a hub 12 (col. 2, lines 30-32). Heintzelman further teaches that each pair 20 is formed by respective blade sections 26, 28, and 44. (col. 2, lines 41-72 and Figs. 1-5). That is, 26, 28, and 44 form 20 and cannot be separated from 20. For example, if we remove 26, 28, and 44, there is nothing left to form blade 20. Alternately stated, it is intrinsically impossible for 26, 28, and 44 to form any structure separate from blades 20. Therefore, 26, 28, and 44 cannot form a surface engaging blades 20.

Heintzelman does not teach every element of Claim 1. Therefore, Claim 1 is novel with respect to the cited prior art. Claim 23, dependent from Claim 1, also enjoys the same distinction from the cited prior art.

The Examiner has stated that the method steps in Claim 27 are inherent in the method of operating the apparatus of Claim 1. Therefore, Claim 27 also is novel with respect to the cited prior art.

Applicant requests that the rejection be removed.

The Objection of Claims 3-22 and 24 as Being Dependent Upon a Rejected Base Claim


Claims 3-22 and 24 were objected to as being dependent upon a rejected base claim, but the Examiner indicated that these claims would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Claims 3-22 and 24 depend from Claim 1. Applicant has shown that Claim 1 is novel with respect to the cited prior art. Therefore, Applicant respectfully submits that these claims are now in condition for allowance, which action is courteously requested.

Attorney Docket No. LKMP:113US
U.S. Patent Application No. 10/763,559
Reply to Office Action of June 7, 2005
Date: June 27, 2005

Conclusion

Applicant respectfully submits that all pending claims are now in condition for allowance, which action is courteously requested.

Respectfully submitted,



C. Paul Maliszewski, P.E.
Registration No. 51,990
CUSTOMER NO. 24041
Simpson & Simpson, PLLC
5555 Main Street
Williamsville, NY 14221-5406
Telephone No. 716-626-1564

CPM
Dated: June 27, 2005